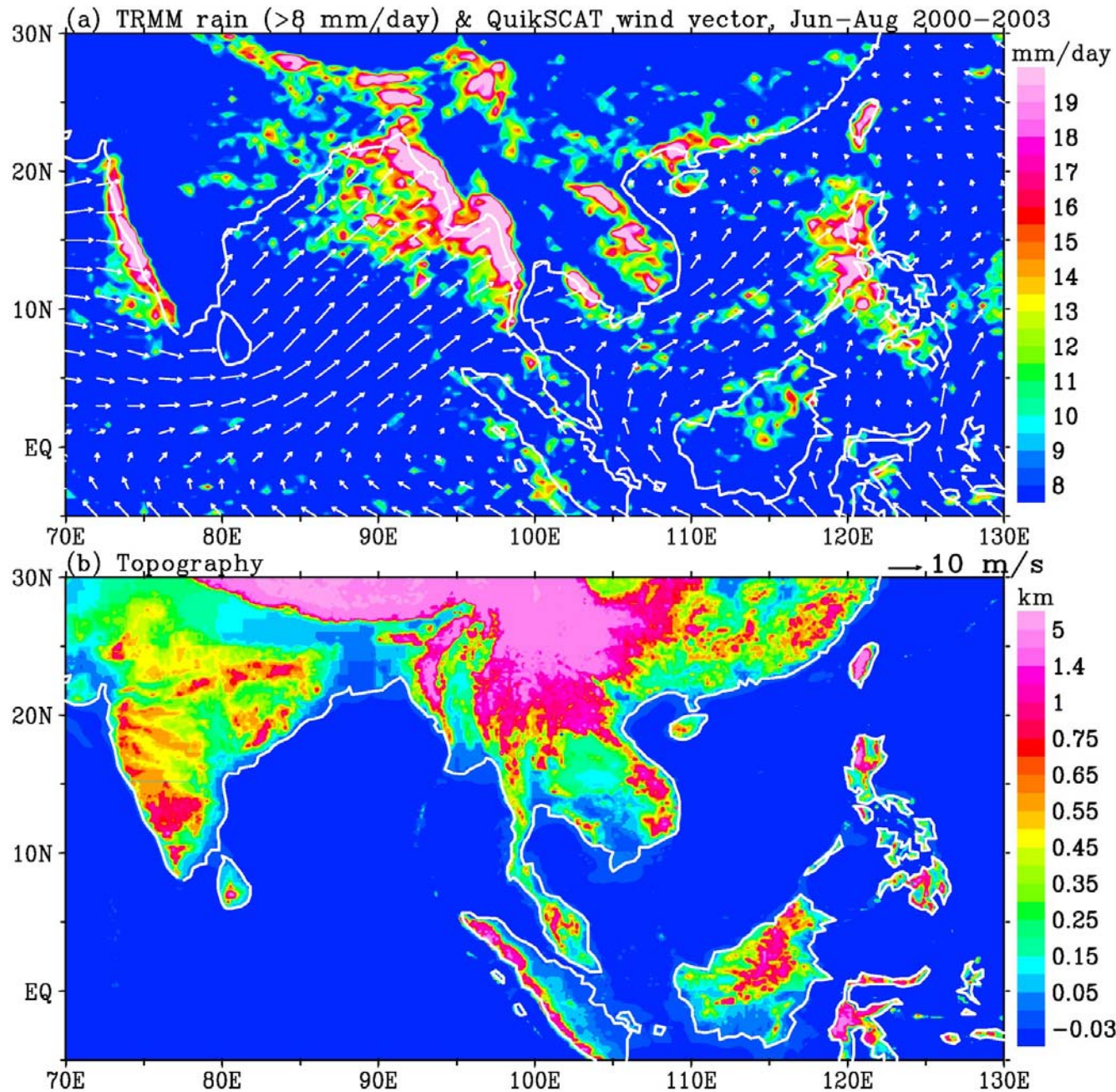


Ocean plays a dominant role over the seasonal changes of continental water balance and regional rainfall of South America, as revealed by combining the monthly rate of mass change from GRACE data, the transport of moisture across the coastline from QuikSCAT wind vector and SSM/I water vapor, rainfall by TRMM, and river discharge climatology.

NASA P.I. :W. Timothy Liu-GRL,2006.





**QuikSCAT and TRMM observations reveal the narrow mountain ranges in Asia as centers of local monsoon rainfall. We postulate that the mountains anchor terrain-forced centers of convection and have far reaching effects on the continental-scale monsoon system, in a numerical experiment .**

**NASA P.I.: Shang-Ping Xie & W. Timothy Liu, JC 2006**